To: Simon, Nathalie[Simon.Nathalie@epa.gov]; Morgan, Cynthia[Morgan.Cynthia@epa.gov];

Dresser, Chris[Dresser.Chris@epa.gov]

From: Smith, Claudia

Sent: Wed 6/15/2016 5:50:34 PM **Subject:** RE: U&O FIP: compliance costs

<u>Draft Cost Analysis Numbers 6 10 16 at 3percent.xlsx</u> <u>Draft Cost Analysis Numbers 6 10 16 at 7percent.xlsx</u>

I think the O&M costs were captured accurately. O&M for LDAR was included in the total capital costs. It appears that you took that into consideration and did not try to double count it. O&M for the combustion devices was included in the O&M for Combustor + Tank Retrofit and Combustor Only. The only other O&M cost for routing dehys and pumps to the same combustor would be in LDAR of the closed-vent system (already included in LDAR capital costs). I think this is the best we can do given the information we have, which relied in part on the NSPS and CTG.

Regarding the 2020 total annualized costs at 3 and 7 percent discount reported (for proposed option) in the draft RIA, draft NPRM, and our cost spreadsheets, have we then mischaracterized/miscalculated those amounts based on a misunderstanding of discount rates? We used the equation you all provided us. Do we then need to flip everything or recalculate the costs for the two discount rates? I've attached our most recent cost spreadsheets for reference.

Sorry for the	confusion,	but neither	of us are	economists!
Thanks,				

Claudia

From: Simon, Nathalie

Sent: Wednesday, June 15, 2016 11:29 AM

To: Smith, Claudia <Smith.Claudia@epa.gov>; Morgan, Cynthia <Morgan.Cynthia@epa.gov>;

Dresser, Chris < Dresser. Chris@epa.gov > Subject: RE: U&O FIP: compliance costs

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Cynthia is sitting with me and looking over my shoulder as I respond to your email.

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

We hope that helps.

The 2018 cost numbers are the same under 3 and 7% discount because we have chosen to discount the values back to 2018.

We're in the process of updating the text surrounding the tables and are iterating with OAQPS on the write-up. We were hoping, though, that in particular you could take a look at the O&M costs in the spreadsheet to make sure we have properly captured them. Are there any missing for specific technologies? Are any of the costs mischaracterized?

We expect to have tables and figures ready to drop into the RIA by late today or early tomorrow. Please let us know as soon as possible if you find any errors in the cost table in the

spreadsheet – in particular if you are aware of any O&M costs that are missing.

Thanks so much!

Nathalie (and Cynthia)

From: Smith, Claudia

Sent: Wednesday, June 15, 2016 11:16 AM

To: Morgan, Cynthia < Morgan. Cynthia@epa.gov >; Dresser, Chris < Dresser. Chris@epa.gov >

Cc: Simon, Nathalie < Simon. Nathalie@epa.gov >

Subject: U&O FIP: compliance costs

Hi, Cynthia,

Thank you for helping us with this analysis. I don't think Chris has had a chance yet to look at the two documents, but I wanted to relay a few questions that came up for me in the meantime, and if Chris has anything further after his review, we will relay them at that time.

Questions from my preliminary review of the spreadsheet and writeup:

- 1. Are 3% and 7% discount rate costs inadvertently flipped in the spreadsheet? Shouldn't 3% costs be lower than 7% based on the equation to figure discount rate?
- 2. 2018 3% and 7% discount rate cost in the spreadsheet is same number intentional? If so, can you please explain?
- 3. I'm having trouble cross-walking the costs in the writeup with those in the spreadsheet. The writeup does not appear to include account for either the 3% or 7% discount rates.

Thanks,
Claudia
From: Morgan, Cynthia Sent: Tuesday, June 14, 2016 2:48 PM To: Smith, Claudia < Smith. Claudia@epa.gov >; Dresser, Chris < Dresser. Chris@epa.gov > Cc: Simon, Nathalie < Simon. Nathalie@epa.gov > Subject: FIP compliance costs
Hi Claudia,
Using information about compliance costs from the RIA, I put together a spreadsheet of total annual compliance costs. Will you look over the spreadsheet and make sure I didn't miss any O&M costs? Attached is the spreadsheet and table. I am leaving the office now but will be in all day tomorrow.
Thanks,
Cynthia
Note: The word document may ask about linking it with data that has changed, just say no.